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PATENTS  
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2682

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of: )  
John E. McGunnigle )

Serial No.: 09/848,048 )

Filed: May 3, 2001 )

For: METHOD AND APPARATUS FOR )  
PROVIDING A WIRELESS IN- )  
TEROFFICE FACILITY )

Examiner: Minh D. Dao

Art Unit: 2682

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RESPONSE

In the Office action dated February 2, 2004, the examiner has rejected claims 1, 2, 4-9 and 11-14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,590,396 to Henry. The examiner has also objected to claims 3 and 10. For the reasons set forth below, Applicant respectfully traverses and submits that all claims are in condition for allowance.

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### **The Present Invention**

The term "interoffice facility" is a term of art in the field of telecommunications. In general, the term refers to a circuit that provides service between two central offices which, by definition, are physical plants controlled by an incumbent local exchange carrier (ILEC). See *Newton's Telecom Dictionary* (7<sup>th</sup> Ed. 1994) (defining "interoffice" to mean "between two telephone company switching offices") (copy of definition attached hereto). See also *IEEE 100 The Authoritative Dictionary of IEEE Standards Terms* (7<sup>th</sup> Ed. 2000) (defining "interoffice trunk" to mean a "direct trunk between local central offices in the same exchange" or a "trunk connecting two telephone offices") (copy of definition attached hereto).

A conventional interoffice facility is part of the public switched telephone network (PSTN) and, by definition, is capable of carrying any type of traffic which may be carried by the PSTN. A conventional interoffice facility is physically supported by optical fiber or copper media extending between two central offices. Thus, a conventional interoffice facility is capable of carrying any type of traffic normally carried by the PSTN, is not wireless, does not overlay the PSTN, and extends between two central offices.

Briefly, the present invention provides a wireless interoffice facility between two or more central offices, tandem switches or other premises controlled by an incumbent local exchange carrier (ILEC). The wireless interoffice facility is physically supported by a plurality of microwave transceivers arranged to form a microwave network which overlays the PSTN.

The wireless interoffice facility of the present invention is capable of carrying any type of traffic that is normally carried by the PSTN.

The wireless interoffice facility of the present invention provides numerous advantages. For example, in an urban environment where PSTN (landline) bandwidth shortages may exist between central offices or other premises controlled by the ILEC, the present invention may be deployed far more rapidly and inexpensively than the installation of optical fiber or copper media. Once the microwave network of the present invention is installed, the wireless bandwidth provided by the present invention may be sold or leased in desired quantities based on demand. This may be particularly advantageous to carriers or service providers who do not need and do not wish to pay for a large quantity of bandwidth between two premises controlled by the ILEC.

Another advantage provided by the present invention is that the wireless bandwidth may be used as either a primary communication path or as a redundant or backup communication path in the event of a service interruption in the PSTN. Additional advantages of the present invention are recited in or will be understood by those skilled in the art by reference to the specification.

#### **The Prior Art**

The examiner's rejection is based on U.S. Patent No. 5,590,396 to Henry. Applicant believes that the Henry patent is distinguishable from the present invention on several grounds.

Henry discloses a digital cellular communications system which includes an arrangement for placing subscribers' cellular phones (handsets) into a "sleep" mode for the

purpose of extending battery life. Henry's system, as shown in Fig. 1, does include a microwave link 108 between two mobile telephone switching offices (MTSOs) 107. In order to connect calls to or from cellular subscribers 109, MTSOs 107 are interfaced with PSTN 105. While Henry does not so state expressly, MTSOs 107 and microwave antennae 108A and 108B are understood to be geographically located according to desired cellular coverage patterns, and not according to the physical location of central offices, tandem switches or other premises controlled by the ILEC.

Contrary to the examiner's assertion, Henry does not disclose or suggest an inter-office facility or a wireless interoffice facility as claimed by applicant for at least the following reasons:

- (1) Henry's MTSOs 107 are not central offices, tandem switches or other premises controlled by the ILEC;
- (2) Henry does not disclose or suggest that his microwave equipment 108A, 108B is geographically located so as to provide wireless bandwidth between two or more central offices, tandem switches or other premises controlled by the ILEC; and
- (3) Henry's microwave link 108 carries only cellular traffic between two MTSOs 107 and is not capable of carrying other types of traffic normally carried by the PSTN.

Henry's MTSOs 107 are not central offices, tandem switches or other premises controlled by the ILEC. By definition, MTSOs 107 are premises that are controlled by a

cellular carrier that contain equipment for interfacing the radiofrequency (RF) portions of a cellular communication system with the PSTN.

Second, Henry is not concerned with providing service, which may be shared by a variety of carriers or service providers, between or among central offices, tandem switches or other premises controlled by the ILEC. Henry does not teach or suggest that his microwave transceivers should be particularly located so as to provide wireless bandwidth between or among ILEC-controlled premises. On the contrary, Henry's system requires critical location of his MTSOs so as to obtain desired cellular coverage over a given geographical area, the location of the microwave transceivers being determined by the location of the MTSOs.

Also, Henry expressly states that microwave link 108 serves to "interconnect" regional networks 101A and 101B (*i.e.*, two cellular networks). *See* col. 4, lines 8-12. Further, microwave link 108 is described as an alternative communication path to long-distance PSTN lines 117. *Id.* Thus, according to the teachings of Henry, microwave link 108 carries only cellular traffic between cellular networks 101A and 101B. There appears to be no mechanism in Henry's system for carrying other types of traffic over microwave link 108, including other types of traffic normally carried by the PSTN. On the contrary, the cellular traffic carried by Henry's microwave link 108 must eventually be switched to and from the PSTN, via MTSOs 107, in order for the cellular system to connect calls originating from or directed to cellular subscribers. Accordingly, while Henry's microwave link 108 cannot carry all of the types of traffic carried by the PSTN,

the present invention may carry any such type of traffic including Henry's cellular traffic which has been switched to the PSTN.

For at least the foregoing reasons, applicant submits that Henry does not anticipate or render obvious the present invention.

The additional references cited by the examiner as being considered pertinent, Berlinsky and Yu *et al.*, are distinguishable from the present invention for at least the reasons set forth above with respect to Henry.

For all of the foregoing reasons, it is believed that all claims are in condition for allowance. Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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